

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY, FLORIDA PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Kawneer Company, Inc. 555 Guthridge Court Norcross, GA 30092

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "1630-SS-IR Dry Glazed" 8-13/16" Aluminum Curtain Wall System - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1847, Series titled "8-¹³/₁₆" Deep 1630-SS-IR Dry Glazed LMI Curtain Wall", sheets 01 through 21 of 21, dated 01/15/13, prepared by W. W. Schafer Engineering & Consulting, P. A., signed and sealed by Warren W. Schafer, P. E., bearing the Miami-Dade County Product Control Section Approval stamp with the Notice of Acceptance number and Approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by Jaime D. Gascon, P. E.

MIAMPDADE COUNTY APPROVED

J. GASCON)

NOA No. 13-0522.12 Expiration Date: August 01, 2018 Approval Date: August 01, 2013 Page 1

Kawneer Company, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No. 1847, Series titled "8-13/16" Deep 1630-SS-IR Dry Glazed LMI Curtain Wall", sheets 01 through 21 of 21, dated 01/15/13, prepared by W. W. Schafer Engineering & Consulting, P. A., signed and sealed by Warren W. Schafer, P. E.

B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Dynamic Water Penetration Test, per AAMA 501.1
 - 5) Small Missile Impact Test per FBC, TAS 201-94 and ASTM E 1886-05/E1996-09
 - 6) Large Missile Impact Test per FBC, TAS 201-94 and ASTM E 1886-05/E1996-09
 - 7) Thermal Cycling Test per AAMA 501.5
 - 8) Cyclic Wind Pressure Loading per FBC, TAS 203-94 and ASTM E 1886-05/ E1996-09

along with marked-up drawings and installation diagram of an Aluminum curtain wall system, prepared by Architectural Testing, Inc., Test Reports No.'s ATI-C0438.01-450-18 and ATI-C0438.02-450-18, both dated 03/28/13, signed and sealed by Vinu J. Abraham, P. E.

- 2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202–94
 - 2) Large Missile Impact Test per FBC, TAS 201-94
 - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a curtain wall system, prepared by Architectural Testing, Inc., Test Reports No.'s ATI-C0439.03-550-18, dated 04/11/13 and ATI-C0439.09-550-18, dated 04/15/13, both signed and sealed by Vinu J. Abraham, P. E.

- 3. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 2) Large Missile Impact Test, Level "E", per FBC, TAS 201–94
 - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a curtain wall system Impact Test, Level "E", prepared by Architectural Testing, Inc., Test Reports No.'s ATI-C0439.05-550-18 dated 03/28/13 and ATI-C2283.01-550-18, dated 04/11/13, both signed and sealed by Vinu J. Abraham, P. E.

Jaime D. Gascon, P. E. Product Control Section Supervisor

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B. TESTS (CONTINUED)

- 4. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202–94
 - 2) Large Missile Impact Test, Wind Zone "3", per FBC, TAS 201-94
 - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a curtain wall system, Impact Test, Wind Zone "3", prepared by Architectural Testing, Inc., Test Report No. ATI-C0439.06-550-18, dated 04/11/13, signed and sealed by Vinu J. Abraham, P. E.

C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with FBC-2010, prepared by W. W. Schafer Engineering & Consulting, P. A., dated 12/18/12, signed and sealed by Warren W. Schafer, P. E.
- 2. Glazing complies with ASTM E1300-04

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 11–0624.02 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont SentryGlas® Interlayer" dated 08/25/11, expiring on 01/14/17.
- 2. Test Report No. 73703, prepared by Excel Polymers, LLC, an A2LA accredited laboratory, dated 04/11/11, issued to Tremco, Inc. for TREMCO Part No. TR-20494P EPDM exterior glazing gasket complying with ASTM D573 70 HRS at 212°F, ASTM D412 1800 PSI, ASTM D395B 22 HRS at 158°F, ASTM D1149 100 HRS at 104°F passed, ASTM D325B passed and ASTM D2137 3-Minutes at -40°F passed.
- 3. Test Report No. 74326, prepared by Excel Polymers, LLC, an A2LA accredited laboratory, dated 04/26/11, issued to Tremco, Inc. for TREMCO Part No. TR-20087E EPDM exterior glazing gasket complying with ASTM D573 70 HRS at 212°F, ASTM D412 1800 PSI, ASTM D395B 22 HRS at 158°F, ASTM D1149 100 HRS at 104°F passed, ASTM D325B passed, ASTM D2137 method A 3-Minutes at -40°F passed, ASTM D2240 durometer 70^{±5} shore A, ASTM D624 tear die 200 lbf/ in. and ASTM D925 migration stain passed.

F. STATEMENTS

1. Statement letter of conformance and complying with FBC-2010, issued by W. W. Schafer Engineering & Consulting, P. A., dated 01/09/13, signed and sealed by Warren W. Schafer, P. E.

Jaime D. Gascon, P. E.

Product Control Section Supervisor

NOA No. 13-0522.12

Expiration Date: August 01, 2018 Approval Date: August 01, 2013

Kawneer Company, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

- 2. Statement letter of no financial interest and independence, issued by W. W. Schafer Engineering & Consulting, P. A., dated 01/09/13, signed and sealed by Warren W. Schafer, P.E.
- 3. Laboratory compliance letters for Test Reports No.'s ATI-C0439.03-550-18, ATI-C0439.05-550-18, ATI-C0439.06-550-18 and ATI-C0439.09-550-18, all above dated 04/11/13 and ATI-C2283.01-550-18, ATI-C0438.01-450-18 and ATI-C0438.02-450-18, all others dated 03/28/13, all issued by Architectural Testing, Inc., signed and sealed by Vinu J. Abraham, P. E.
- 4. Proposal No. 11–0217 issued by Product Control, dated 06/15/12, signed by Jaime D. Gascon, P. E.

G. OTHERS

1. None.

Jaime D. Gascon, P. E. Product Control Section Supervisor NOA No. 13-0522.12

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Expiration Date: August 01, 2018 Approval Date: August 01, 2013

GENERAL NOTES:

1. THESE CURTAIN WALL SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S) 2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.

3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE

MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.

4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCALS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT CURTAIN WALL

5. THESE CURTAIN WALL SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES

6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS CURTAIN WALL SYSTEM.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF Kd = 0.85 May be applied per the asce-7 standard.

8. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD SCREW LOAD VERIFICATION ONLY. 9, MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20. 10. THERE SHALL BE NO LIMIT TO THE NUMBER OF HORIZONTAL & VERTICAL PANELS USED FOR ANY JOB PROVIDING ALL RESTRICTIONS ARE MET PER THE ELEVATIONS.

DRAWING USE INSTRUCTIONS:

- DETERMINE IF THE WALL SYSTEM IS TO BE A MULTI-SPAN OR SINGLE SPAN CONDITION. IF MULTI-SPAN, THE ELEVATIONS SHOWN ON SHEET 3 SHALL APPLY. IF A SINGLE SPAN, THE ELEVATIONS SHOWN ON SHEET 4
- 2. ALLOWABLE GLASS PRESSURE SHALL BE CONSIDERED WITH ALL WALL CONDITIONS AND SHALL CONTROL IF LESS THAN THOSE ALLOWABLE PRESSURES DETERMINED FOR THE APPLICABLE FRAMING SYSTEM.

<u>CORNER_CONSTRUCTION:</u>

HEAD & SILL MEMBERS TO STANDARD VERTICAL SIDE & INTERMEDIATE MEMBERS; VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED THROUGH VERTICAL MEMBERS & INTO THE HORIZONTAL MEMBERS SCREW SPLINES WITH 2 NO. 12 X 1" HWHTTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

INTERMEDIATE HORIZONTAL MEMBERS TO STANDARD VERTICAL SIDE & INTERMEDIATE MEMBERS: VERTICAL

MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED THROUGH VERTICAL MEMBERS & INTO THE HORIZONTAL MEMBERS SCREW SPLINES WITH 4 NO. 12 X 1" HWHTTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE

HEAD & SILL MEMBERS TO CORNER FRAMING MEMBER: VERTICAL CORNER MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS VERTICAL MEMBERS VIA A SHEAR FASTENED TO THE VERTICAL CORN HORIZONTAL FRAME MEMBERS ARE SCREWS, CORNERS ARE SEALED INTERMEDIATE HORIZONTAL MEMBI

WHILE THE HORIZONTAL MEMBERS VERTICAL MEMBERS VIA A SHEAR TO THE VERTICAL CORNER FRAME FRAME MEMBERS ARE ATTACHED ARE SEALED WITH DOW 795 SILIC

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S ARE MITER CUT, BUTTED AND MECHANICALLY FASTENED TO THE	
BLOCK (ITEMS #9 OR #10). THE SHEAR BLOCK IS MECHANICALLY	
NER FRAME MEMBERS WITH 4 NO. 12 X 7/16" PHTF SCREWS. THE	
RE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 5/8" PHTF	
WITH DOW 795 SILICONE SEALANT.	
ERS TO CORNER FRAMING MEMBER: VERTICAL MEMBERS RUN THROUGH	
S ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED TO THE	
BLOCK (ITEM #11). THE SHEAR BLOCK IS MECHANICALLY FASTENED	
E MEMBERS WITH 4 NO. 12 X 7/16" PHTF SCREWS. THE HORIZONTAL	
TO THE SHEAR BLOCK WITH 4 NO. 12 X 1" FHTF SCREWS. CORNERS	
CONE SEALANT.	
E SPANNING PERIMETER FRAME MEMBER	
RIMETER SEALANT NOTE:	
MINIMUM & MAXIMUM ALLOWABLE SPACE	
WEEN PERIMETER FRAME MEMBERS & THE	
ENING SUBSTRATE OR FINISHES SHALL BE	
CIFIED BY THE ENGINEER OR ARCHITECT OF	
CORD FOR EACH JOB BUT SHALL NOT BE LESS	
N 1/2" NOR GREATER THAN 1 3/8". WHEN	
NSIDÉRING TYPE, DEPTH & JOINT SPAN OF	
LANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO	
NSIDERATION THE DEFLECTION OF THE JAMB	
MBER THAT WOULD OCCUR WHILE SUPPORTING THE	
B REQUIRED DESIGN WIND PRESSURE. ALSO TO	
CONSIDERED SHALL BE THE MATERIALS &	
RFACES TO WHICH THE SEALANT WILL BE APPLIED.	

MAXIMUM ALLOWABLE VERTICAL FRAMING MEMBER DEFLECTION		W.R.I W.R.I 1: 1=4	L	DAT	 /.S.	
INTERMEDIATE & CORNER FRAMING MEMBERS:	DATE					
L/180	Æ					
PERIMETER SIDE FRAMING MEMBERS: LESSER OF L/180 OR 0.86"	DESCRIPTION					
OTES: L/180 = MEMBER'S UNSUPPORTED	REVISION					

WALL

CURTAIN

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GLAZED

DRY

KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

NOTES

- SPAN LENGTH DIVIDED BY 180.
- THIS IS THE MAXIMUM ALLOWABLE DEFLECTION AS RESTRICTED BY TESTING & THE BUILDING CODE. IF JOB CONDITIONS REQUIRE LESS DEFLECTION, THE JOB CONDITIONS SHALL CONTROL.

MAXIMUM ALLOWABLE DESIGN PRESSURE (MULTI & SINGLE SPAN CURTAIN WALL)

+130/-130 PSF

. THE ABOVE STATED PRESSURES ARE THE MAXIMUM ALLOWED ON ANY JOB REGARDLESS OF WHAT THE JOB SPECIFIC DESIGN RESULTS MAY SHOW. INCREASE OF ALLOWABLE DESIGN PRESSURE ON ANY JOB IS CONSIDERED OUTSIDE THE SCOPE OF THIS APPROVAL. SEE "CURTAIN WALL DESIGN NOTES" ON THIS SHEET FOR ACTUAL JOB DESIGN CONDITIONS.

2. SEE "GLASS D.L.O. SIZE VS. PRESSURE" TABLE ON THIS SHEET FOR GLASS PRESSURE RESTRICTIONS. THE LESSER OF THE ALLOWABLE PRESSURE ON THE FRAMING SYSTEM AND THAT OF THE GLASS SHALL CONTROL FOR THE OVERALL SYSTEM.

GLASS	D.L.O.	SIZE VS	S. PRESS	SURE	S-IR	MANUF
GLASS OPTIONS	MAXIMUM D.L.O. WIDTH	MAXIMUM D.L.O. HEIGHT	MISSILE LEVEL RATING	ALLOWABLE DESIGN PRESSURE	1630–SS	RING 6809) 8
4	60"	93"	D	+/-90 PSF	<u>р</u> .	
!	93"	60"	D	+/-90 PSF	DEEP	NGINE PORTE
0	60"	93"	D	+/-110 PSF		A GURT
2	93"	60"	D	+/-110 PSF	7	NS ESS
7	60"	93"	Ε	+/-130 PSF	ਜੂ <u>ਦ</u>	* # # # # # # # # # # # # # # # # # # #
3	93"	60"	Ε	+/-130 PSF	⊫∞	SCH SCH NSUL 7480 11
SEE GLAZING	DETAILS F	OR GLASS	OPTIONS		NING NING	SULTA ¥ . CON 7.
					DRAWIN	ଞ୍≨ୟ

Approved as complying with the Plorida Building Code
Date
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THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUC SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL ANY PRODUCT NOT PRODUCED BY THE MANUFACTURES

1847 SHEET NO. or 2'

	FRAME MEMBER	R END ANCHOR REQUIREMENTS TABLE		
	OPENING TYPE (SUBSTRATE)	ANCHOR TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
	1/4"	OR NO. 14 SCREWS/BOLTS		
(4)	MIN. 6" WIDE X 2" THICK WOOD FRAME OR BUCK (MIN. GR. 2 & G=0.55)	1/4" LAG OR NO. 14 SMS OR WOOD SCREW	1 3/4"	1"
(4)	MIN. 16 GA. 50 KSI METAL STUD,	1/4-14 GR. 5 SELF TAP/DRILL SCREW	FULL.	1/2"
	MIN. 1/8" THK A36 STEEL OR MIN. 1/8" THK 6063-T5 ALUMINUM	1/4" GR. 5 CS OR 410 SS BOLT WITH WASHER & LOCK NUT	FULL.	1/2"
	MIN. 3000 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 3/4"	2"
		5/16" SCREWS/BOLTS		•
		5/16-24 GR. 5 SELF TAP/DRILL SCREW	FULL	5/8"
	MIN. 1/8" THK A36 STEEL	5/16" GR. 5 CS OR 410 SS BOLT WITH WASHER & LOCK NUT	FULL	5/8"
		1/2" SCREWS/BOLTS		
	MIN. 1/4" THK A36 STEEL	1/2-13 300 SS HCMS OR GR. 5 CS THREAD FORMING SCREW	FULL	1"
	MIN. 1/8" THK A36 STEEL	1/2" GR. 5 CS OR 410 SS BOLT WITH WASHER & LOCK NUT	FULL	1"
	(3) MIN. 3000 PSI CONCRETE	(2) 1/2" CONCRETE SCREW ANCHOR	3 3/4"	SEE DETAILS

- CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).
- 1/2" CONCRETE SCREWS SHALL BE SIMPSON STRONG--TIE TITAN HD SCREW ANCHOR (GALVANIZED STEEL). SEE DETAILS ON SHEETS 8 & 9 FOR CONCRETE THICKNESS REQUIREMENTS WHEN 1/2" CONCRETE SCREWS
- WOOD AND METAL STUD SUBSTRATES MAY NOT APPLY WITH LEVEL "E" CURTAIN WALL.

VERTICAL MEMBER END ANCHOR REACTION LOAD CAPACITY (MULTI & SINGLE SPAN CURTAIN WALL)

ANCHOR SECTION (3)	ANCHOR DESCRIPTION	(1) MAXIMUM ALLOWABLE REACTION LOAD
A1	SIDE MEMBER TO WOOD, METAL STUD OR ALUMINUM SUBSTRATE	877 LBS
A2	SIDE MEMBER TO STEEL SUBSTRATE	2058 LBS
A3	SIDE MEMBER TO CONCRETE SUBSTRATE	1990 LBS
B1	INTERMEDIATE MEMBER TO WOOD, METAL STUD OR ALUMINUM SUBSTRATE	1646 LBS
B2	INTERMEDIATE MEMBER TO STEEL SUBSTRATE	4515 LBS
B3	INTERMEDIATE MEMBER TO CONCRETE SUBSTRATE	3626 LBS
C1	INTERMEDIATE DOOR JAMB MEMBER TO CONCRETE OR STEEL SUBSTRATE AT SILL	3511 LBS
D1	CORNER MEMBER TO STEEL SUBSTRATE	(2) 2726 LBS
D2	CORNER MEMBER TO CONCRETE SUBSTRATE	(2) 2726 LBS

- (1) MAXIMUM ALLOWABLE REACTION LOADS SHOWN CONSIDER RÉACTIONS FROM WIND LOADS ONLY & APPLY TO BOTH POSITIVE & NEGATIVE WIND DIRECTIONS. IN ADDITION TO WIND LOADS, THE CURTAIN WALL DESIGN ENGINEER OF RECORD FOR EACH PROJECT SHALL ALSO CONSIDER OTHER APPLICABLE LOADS SUCH AS, BUT POSSIBLY NOT LIMITED TO, DEAD LOADS FROM THE CURTAIN WALL WEIGHT.
- (2) REACTION LOAD SHOWN FOR THE CORNER ANCHORS IS THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR EITHER SIDE LOAD, THE ALLOWABLE REACTION LOAD SHALL NOT EXCEED 1928 LBS FROM EITHER SIDE FOR ANCHOR TYPES D1 & D2.
- (3) FOR ANCHOR SECTIONS, SEE SECTIONS ON SHEETS 7 & 8.

WIND LOAD ANCHOR REACTION LOAD **CAPACITY**

(MULTI & SINGLE SPAN CURTAIN WALL)

MEMBER TYPE	(1) MAXIMUM ALLOWABLE REACTION LOAD
SIDE	6125 LBS
INTERMEDIATE	11789 LBS
CORNER	(2) 8661 LBS

(1) WIND LOAD ANCHORS ARE APPLICABLE FOR WIND LOAD RESISTANCE ONLY. THEY ARE NOT APPLICABLE FOR SUPPORT OF WALL WEIGHT. (2) REACTION LOAD SHOWN FOR THE CORNER ANCHORS IS THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR EITHER SIDE LOAD, THE ALLOWABLE REACTION LOAD SHALL NOT EXCEED 6125 LBS FROM EITHER SIDE.

(1) MAXIMUM ALLOWABLE BENDING MOMENTS IN VERTICAL FRAMING MEMBERS (MULTI AND SINGLE SPAN WALLS)

(2) VERTICAL MEMBER	(3) MAXIMUM ALLOWABLE BENDING MOMENT (POS & NEG)
SIDE MEMBER WITH REINFORCEMENT "RO"	(5) 61558 IN-LB
SIDE MEMBER WITH REINFORCEMENT "R1"	(5) ₁₀₄₀₆₀ IN-LB
SIDE MEMBER WITH REINFORCEMENT "R2"	(5) ₁₀₄₀₆₀ IN-LB
INTERMEDIATE MEMBER WITH NO REINFORCEMENT	56110 IN-LB
INTERMEDIATE MEMBER WITH REINFORCEMENT "R1"	98309 IN-LB
INTERMEDIATE MEMBER WITH REINFORCEMENT "R2"	185145 IN-LB
CORNER MEMBER WITH REINFORCEMENT "R3"	(4)147141 IN-LB

- (1) THE VALUES IS THIS TABLE ARE APPLICABLE TO THE JOB RÉQUIRED DESIGN OF THE MULTI-SPAN & SINGLE SPAN WALL SYSTEMS.
- (2) FOR DESCRIPTIONS OF REINFORCEMENTS, SEE THE "VERTICAL MEMBER REINFORCEMENT LEGEND".
- (3) ALL VALUES ARE BASED ON THE LESSER OF TESTED MOMENT AND ALLOWABLE MOMENT.
- (4) MOMENT VALUE SHOWN FOR THE CORNER MULLION IS DUE TO THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR SINGLE SIDE LOAD, THE ALLOWABLE MOMENT SHALL NOT EXCEED 104060 IN-LB. IN THAT DIRECTION (LOAD VECTOR 45 DEGREES TO MULLION ANGLE).
- (5) WHEN 2 SIDE MEMBERS ARE USED TO FORM A CORNER, EACH SIDE MEMBER SHALL BE RESTRICTED TO THE INDIVIDUAL ALLOWABLE MOMENT SHOWN IN THIS TABLE (EACH CONSIDERED TO RESIST ITS OWN SINGLE SIDE LOAD).

CURTAIN WALL DESIGN NOTES

1. WITH EACH APPLICABLE JOB, SHOP DRAWINGS SHALL BE PREPARED AND CERTIFIED BY A LICENSED ENGINEER EXPERIENCED WITH CURTAIN WALL DESIGN. 2. THE RESPONSIBLE ENGINEER SHALL DESIGN THE WALL SYSTEM SEPARATELY FOR EACH JOB & CONFIRM THAT ALL CONDITIONS STATED HERE-IN HAVE BEEN CONSIDERED AND ADHERED TO IN THAT DESIGN.

3. IN HIS/HER DESIGN, THE RESPONSIBLE ENGINEER SHALL VERIFY THE INTEGRITY OF ALL CONNECTIONS AND FRAMING MEMBERS & SHALL TAKE FULL RESPONSIBILITY FOR THE INTEGRITY OF THE SYSTEM DESIGN AS A WHOLE WHILE NOT ALLOWING THE CONDITIONS STATED HERE-IN TO BE EXCEEDED. ALLOWABLE SUPPORT REACTIONS AND VERTICAL FRAMING MEMBER BENDING MOMENTS SHALL NOT EXCEED THOSE STATED IN THE TABLES ON THIS SHEET, REGARDLESS OF JOB DESIGN.

4. THE CURTAIN WALL DESIGN ENGINEER SHALL CONSIDER ALL APPLICABLE REACTION LOADS IN HIS/HER DESIGN WHILE NOT ALLOWING THE REACTIONS RESUTLING FROM WIND LOADS TO EXCEED THOSE SPECIFIED IN THE ANCHOR REACTION LOAD TABLE.

5. THE WORSE CASE OF THE CONDITIONS SPECIFIED IN THIS PRODUCT APPROVAL DRAWING AND THOSE DETERMINED BY THE INDIVIDUAL JOB ENGINEER'S ANALYSIS & DESIGN SHALL CONTROL AS APPLICABLE FOR THE ACTUAL JOB.

6. REGARDLESS OF JOB DETERMINED MEMBER STRESS & DEFLECTION CONDITIONS, THE FOLLOWING SHALL APPLY:

A. REINFORCEMENT TYPE R1 MUST BE PLACED BETWEEN SUPPORTS IN ALL VERTICAL FRAME MEMBERS THAT SPAN OVER 132" BETWEEN THEIR SUPPORTS (NOT REQUIRED IF THE UNSUPPORTED SPAN IS 132" OR LESS & THE JOB DESIGN ALLOWS FOR NO REINFORCEMENT).

B. REINFORCEMENT TYPE R2 MUST BE PLACED BETWEEN SUPPORTS IN ALL VERTICAL FRAME MEMBERS THAT SPAN OVER 144" BETWEEN THEIR SUPPORTS (NOT REQUIRED IF THE UNSUPPORTED SPAN IS 144" OR LESS & THE JOB DESIGN ALLOWS FOR LESSER OR NO REINFORCEMENT)

C. ALL VERTICAL INTERMEDIATE FRAMING MEMBERS SHALL BE REINFORCED ACROSS ALL INTERMEDIATE WIND LOAD ANCHOR LOCATIONS WITH ONE OF THE REINFORCEMENT TYPES R1 OR R2 AS SPECIFIED IN THE ELEVATION. THIS REINFORCEMENT SHALL EXTEND A MINIMUM OF 18" ABOVE & BELOW THE SUPPORT. REINFORCEMENT TYPE R3 IS REQUIRED IN ALL VERTICAL CORNER FRAME MEMBERS. IT SHALL BE CONTINUOUS BETWEEN ALL MEMBER SPLICE JOINTS AND

EXTEND TO WITHIN 15" OF WALL BASE, 15" OF A SPLICE & 15" OF THE WALL TOP.

7. REINFORCEMENT IS NOT REQUIRED TO BE CONTINUOUS TOP TO BOTTOM WITHIN THE VERTICAL FRAMING MEMBERS. REINFORCEMENT MAY BE NON-CONTINUOUS, AS DETERMINED FOR EACH JOB, PROVIDING IT MEETS THE MINIMUM GUIDELINES OF THIS DRAWING.

8. WHILE A TWIN SPAN IS SHOWN, MORE THAN 2 SPANS MAY EXIST WITHIN THE MAXIMUM OVERALL HEIGHT SHOWN.

9. THE OVERALL CURTAIN WALL HEIGHT SHALL NOT EXCEED THAT SPECIFIED. HOWEVER, MORE THAN ONE CURTAIN WALL ASSEMBLY MAY BE STACKED ON ANY BUILDING PROVIDING EACH CURTAIN WALL ASSEMBLY IS RESTED ON SEPERATE BASE STRUCTURE.

10. SPLICING OF VERTICAL FRAME MEMBERS MAY OCCUR BETWEEN SUPPORTS AS REQUIRED. LOCATION OF THOSE SPLICES SHALL BE WHERE A BENDING MOMENT OF NEAR ZERO(0) EXISTS IN THE MEMBER.

11. THE ELEVATIONS SHOW ONE DOOR SECTION. MULTIPLE DOOR SECTIONS MAY OCCUR SIDE-BY SIDE IN ONE WALL SYSTEM PROVIDING ALL REQUIREMENTS WITHIN THIS DRAWING ARE MET AND THE JOB DESIGN ALLOWS FOR THE MULTIPLE DOOR CONDITION.

12. ALTHOUGH A DOOR SECTION IS SHOWN, THAT SECTION MAY EXIST WITH OR WITHOUT A DOOR.

13. DOORS MUST ALWAYS BE PLACED BETWEEN 2 INTERMEDIATE VERTICAL FRAMING MEMBERS. THEY MAY NOT BE PLACED AGAINST A SIDE MEMBER.

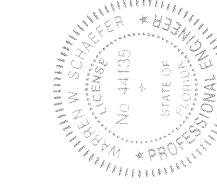
14. THERE IS NO LIMIT TO THE NUMBER OF SECTIONS HORIZONTALLY PROVIDING THE OPENING IS DESIGNED TO SUPPORT THE LOADS TRANSFERED FROM THE WALL

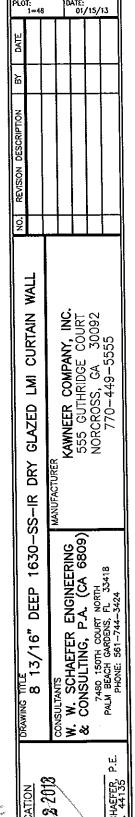
15. ANY CONDITIONS THAT VARY FROM THOSE SPECIFIED HERE-IN SHALL BE SUBJECT TO SEPERATE EVALUATION AND CERTIFICATION BY A FLORIDA P.E. AND SHALL BE CONSIDERED OUTSIDE THE SCOPE OF THIS APPROVAL.

VERTICAL MEMBER REINFORCEMENT LEGEND

- RO = NO REINFORCEMENT
- R1 = REINFORCED WITH 1 STEEL BAR PART NUMBER 28
- $\overline{R2}$ = REINFORCED WITH 2 STEEL BARS PART NUMBER 28
- R3 = REINFORCED WITH 3 STEEL CHANNELS PART NUMBERS 29, 30 & 31

SEE PARTS DRAWINGS & PARTS LIST FOR APPLICABLE REINFORCEMENT MEMBERS & THEIR DETAIL.



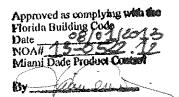


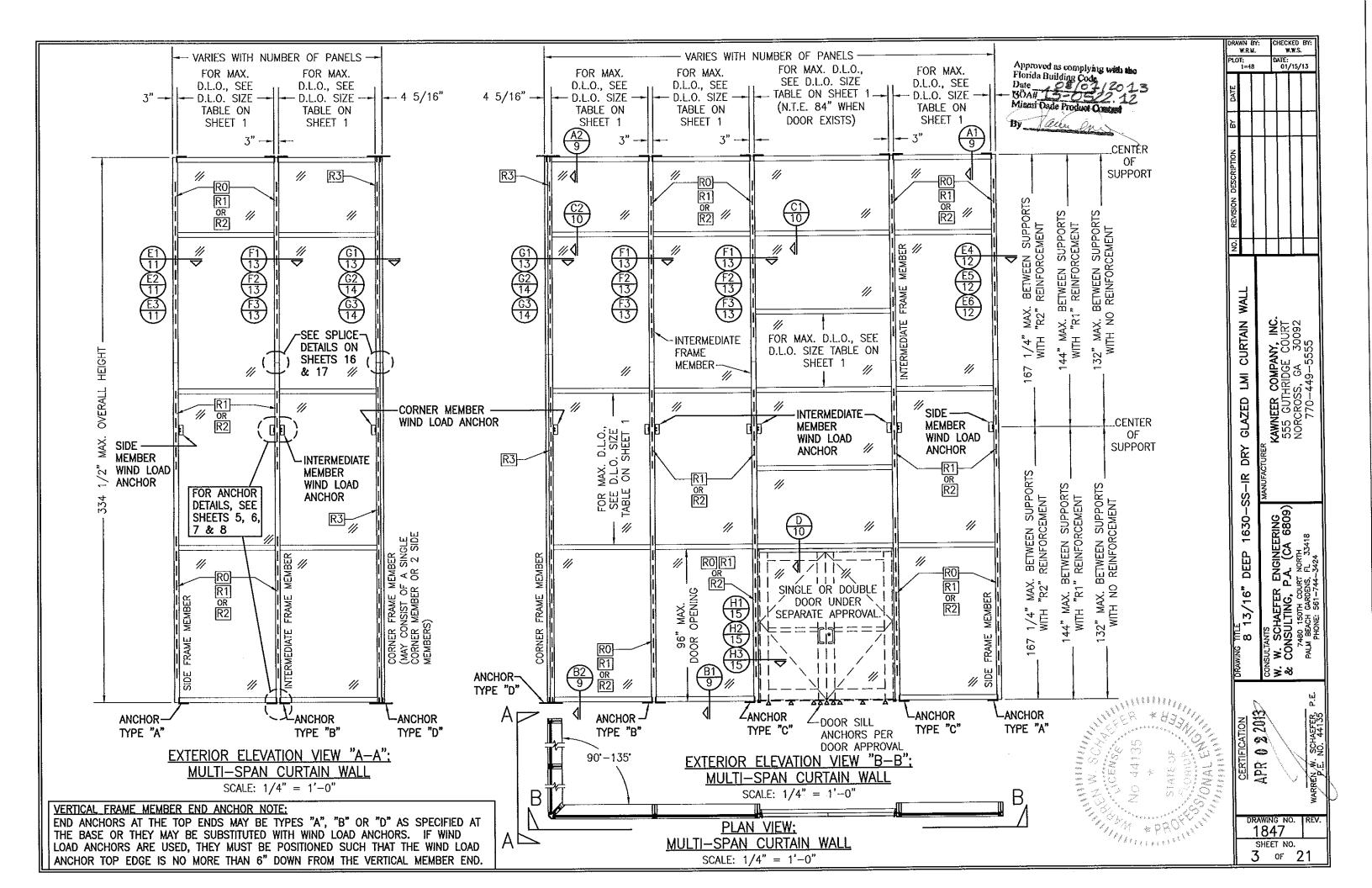
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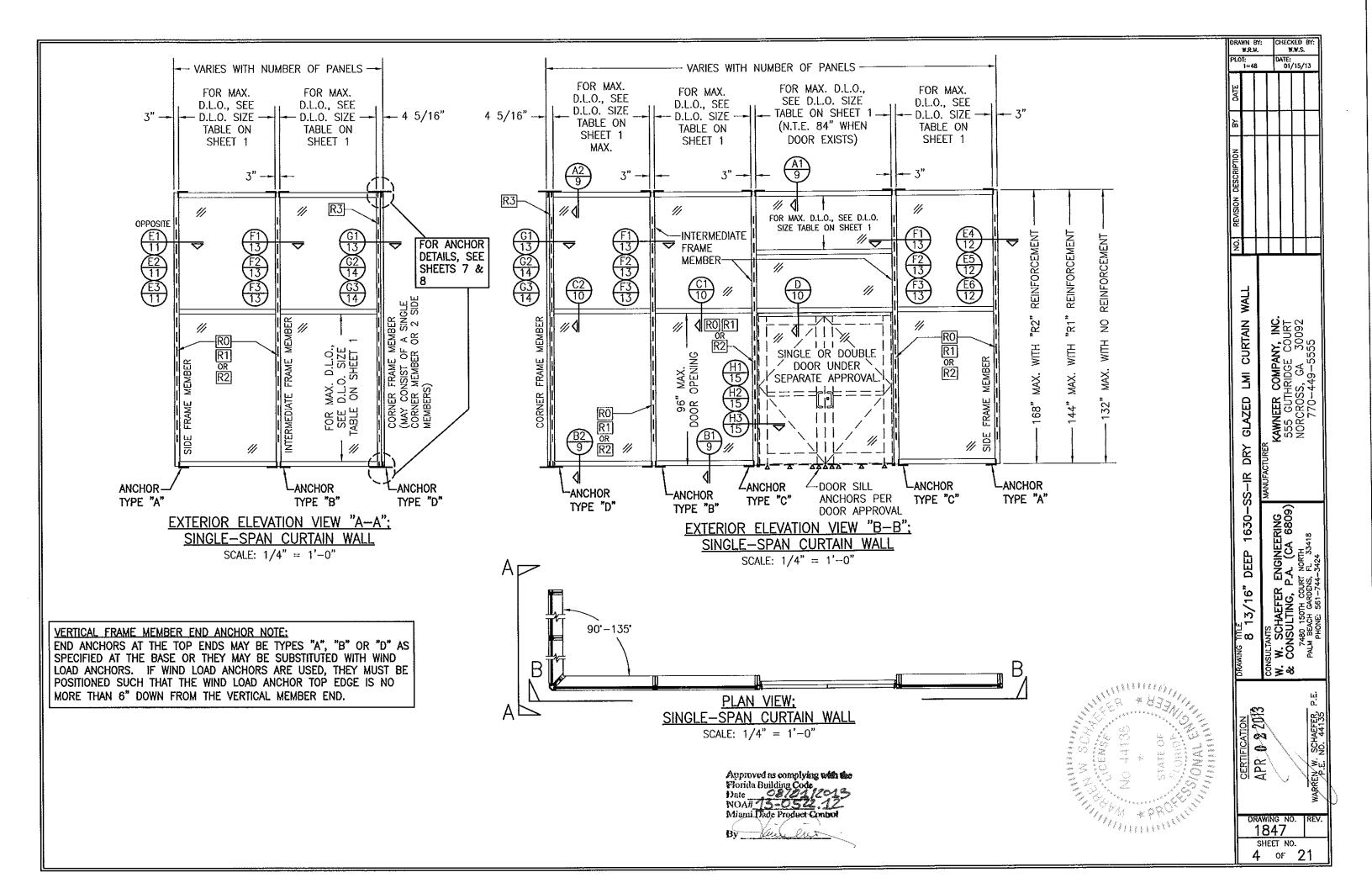
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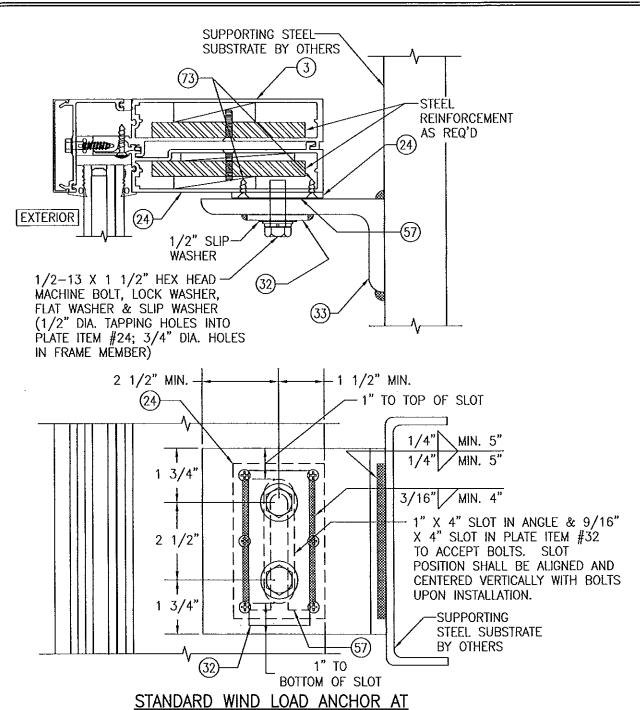
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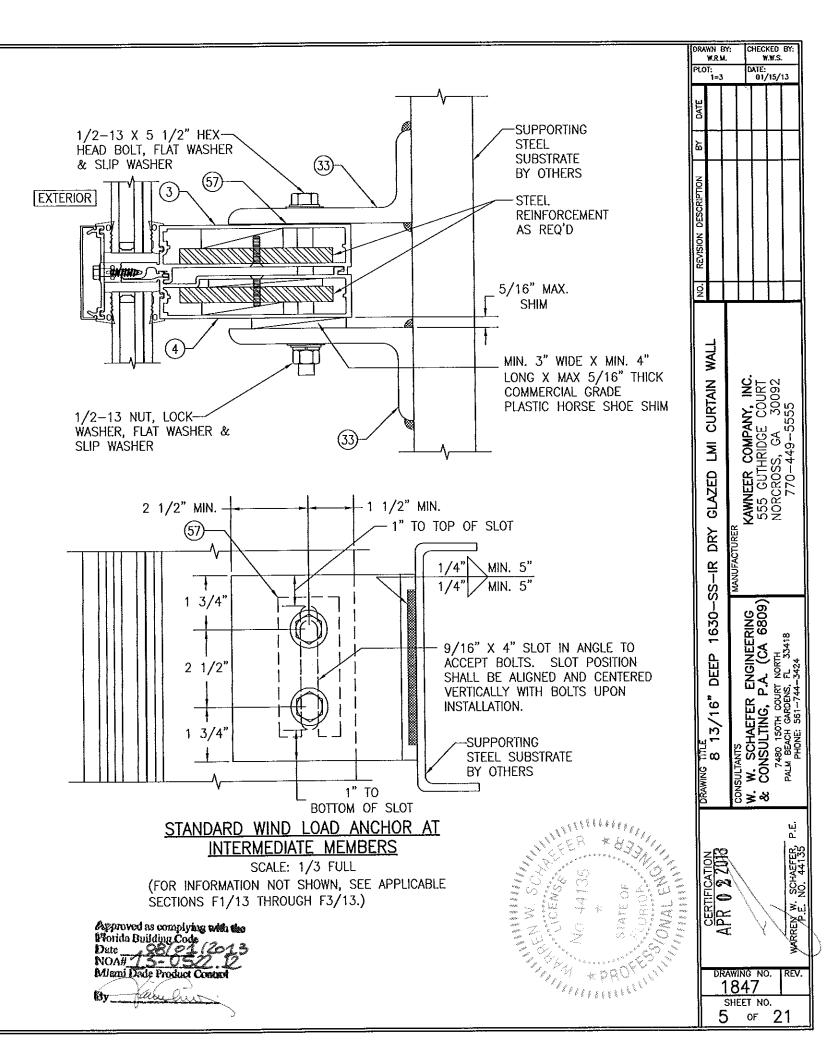


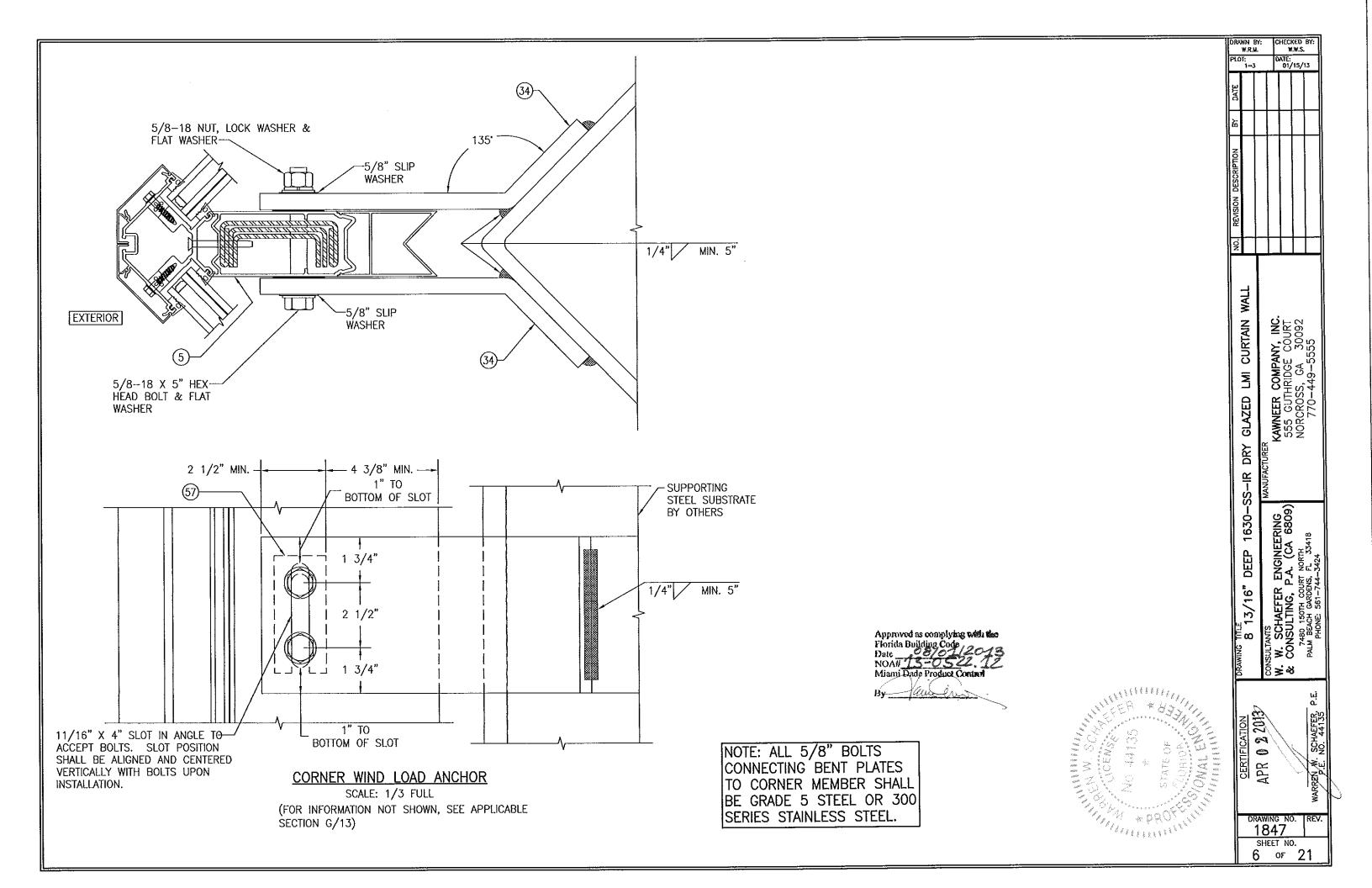
STANDARD WIND LOAD ANCHOR AT SIDE MEMBERS

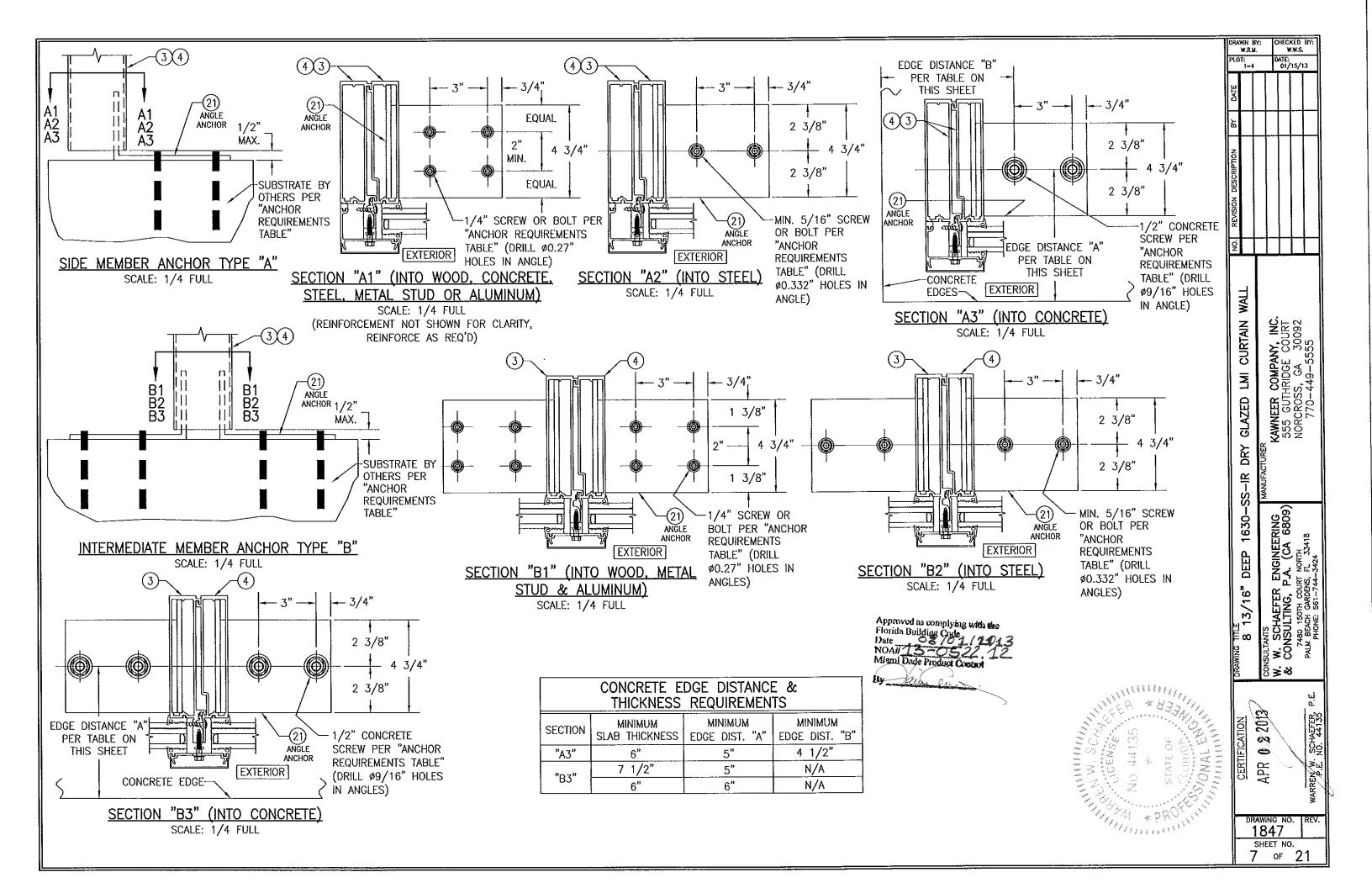
SCALE: 1/3 FULL

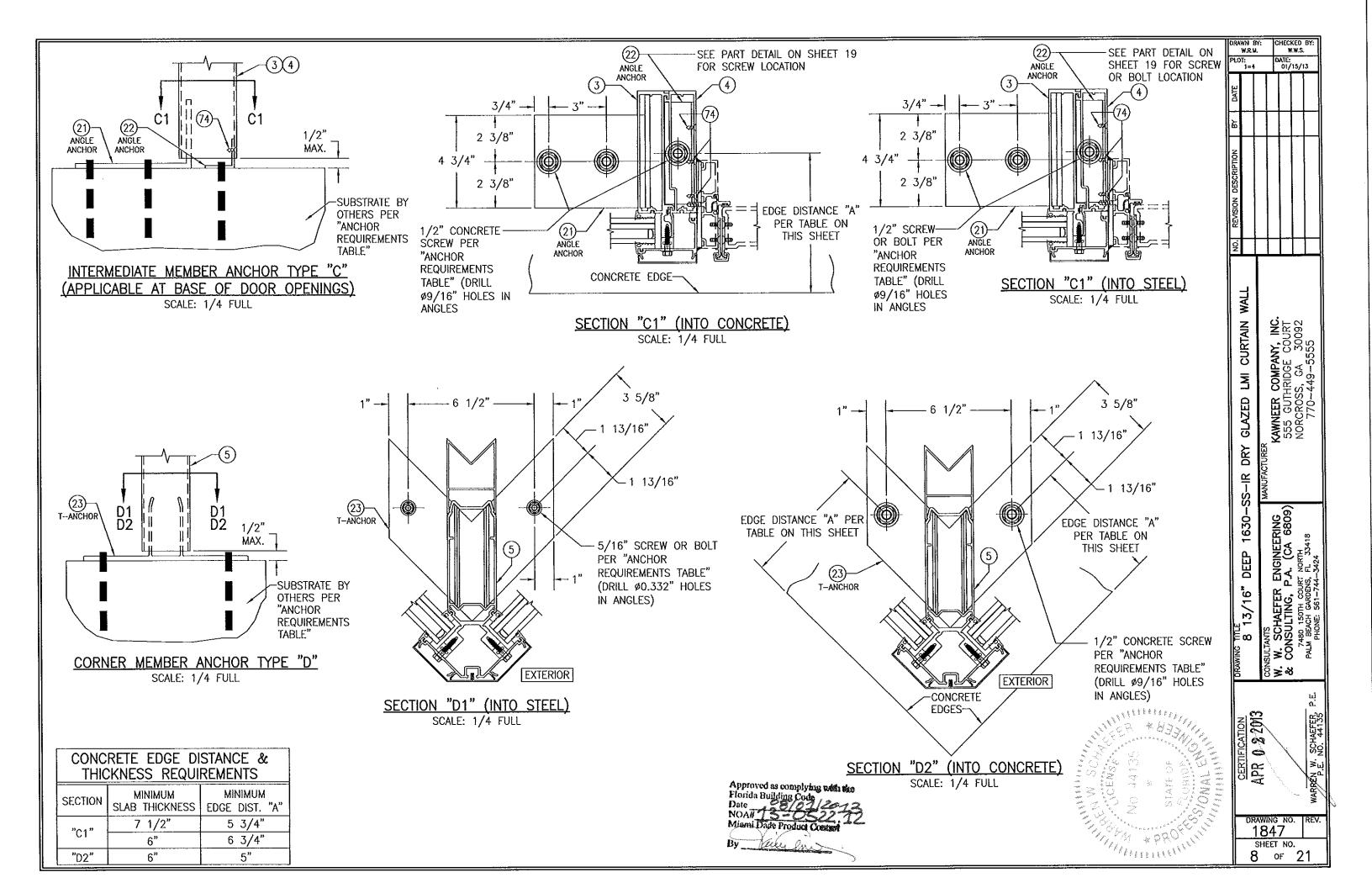
(FOR INFORMATION NOT SHOWN, SEE APPLICABLE SECTIONS E1/11 THROUGH E6/12.)

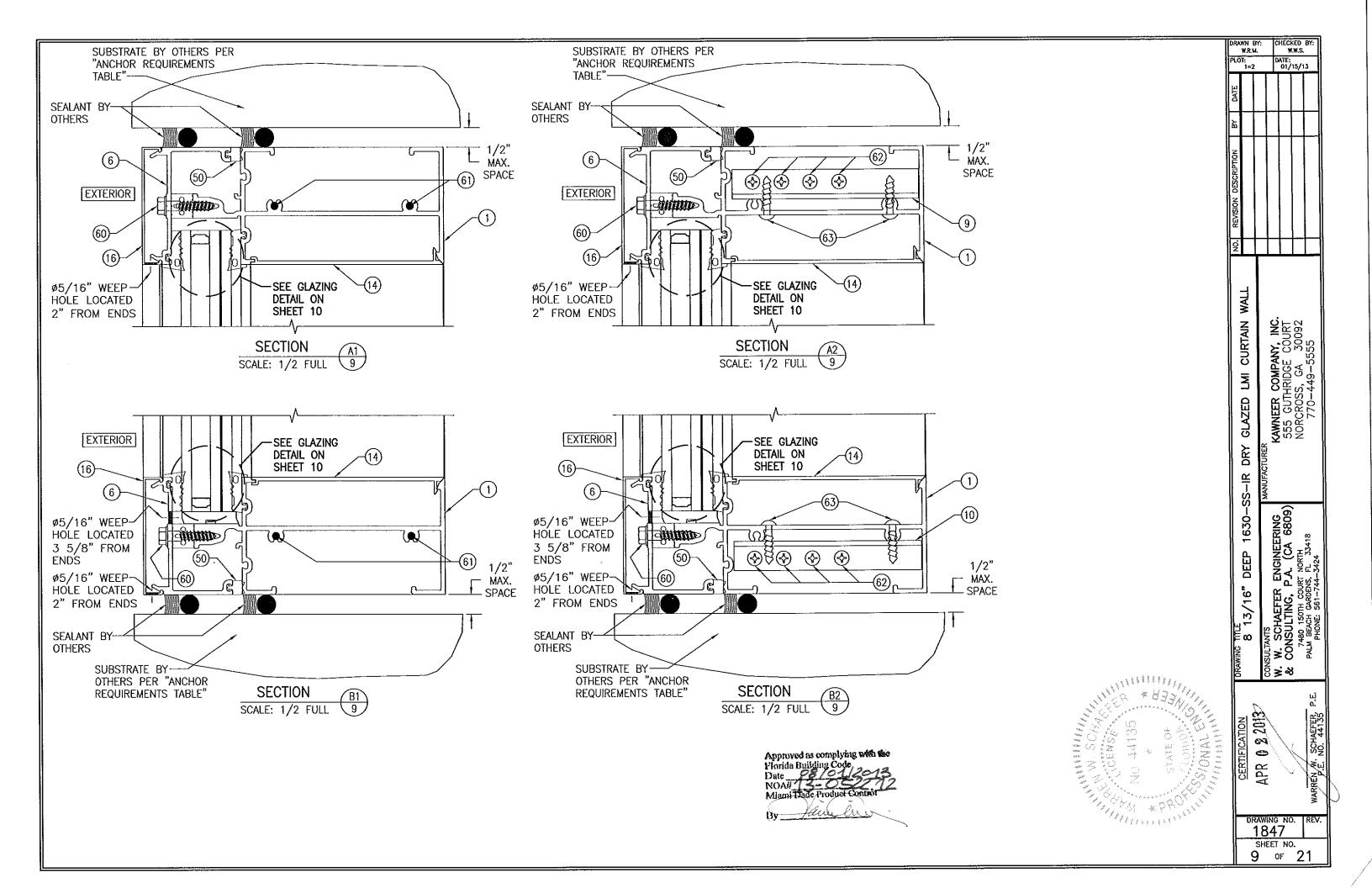
NOTE: ALL 1/2" BOLTS
CONNECTING ANGLES TO
MEMBERS SHALL BE GRADE
5 STEEL OR 300 SERIES
STAINLESS STEEL.

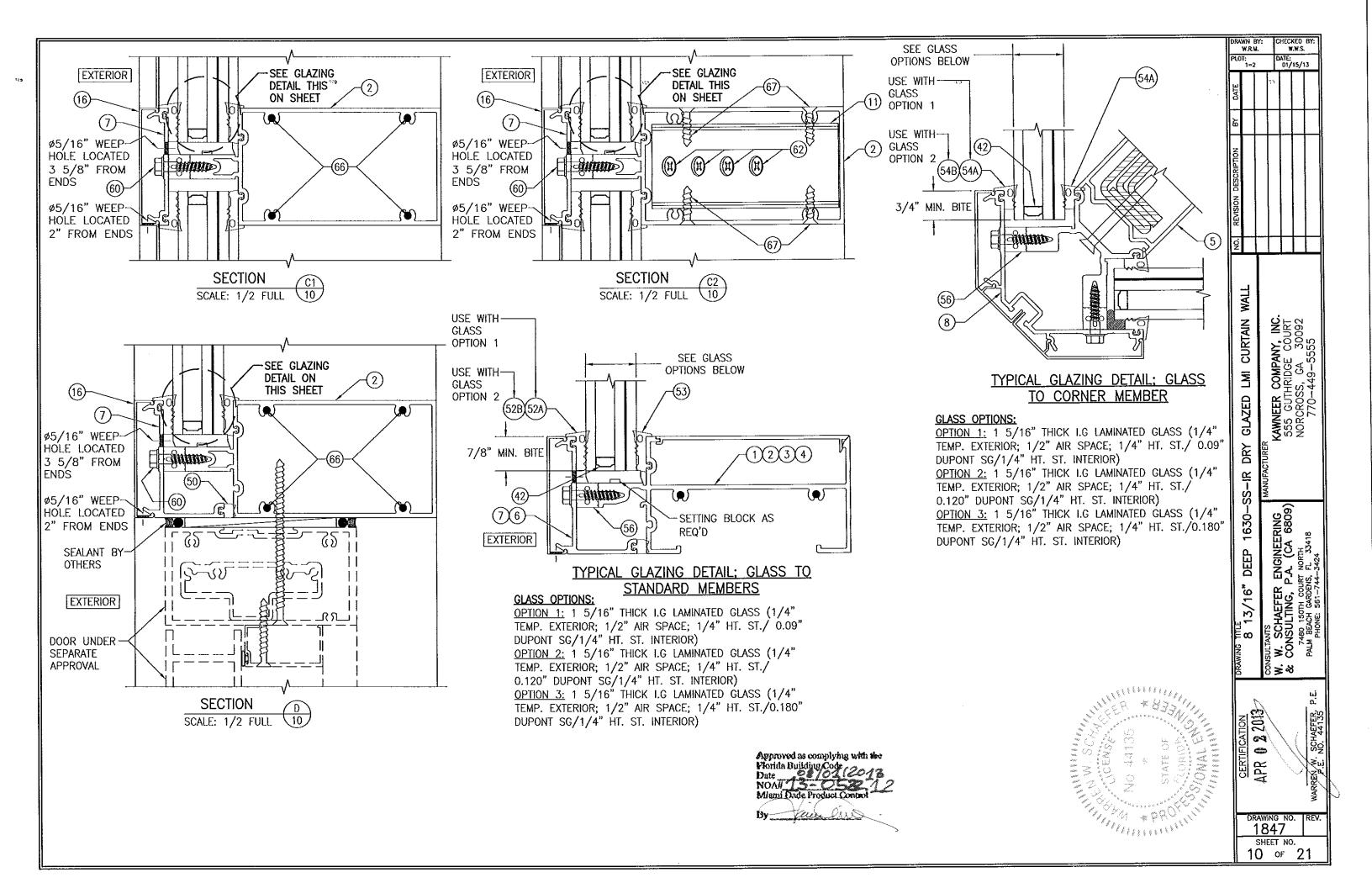


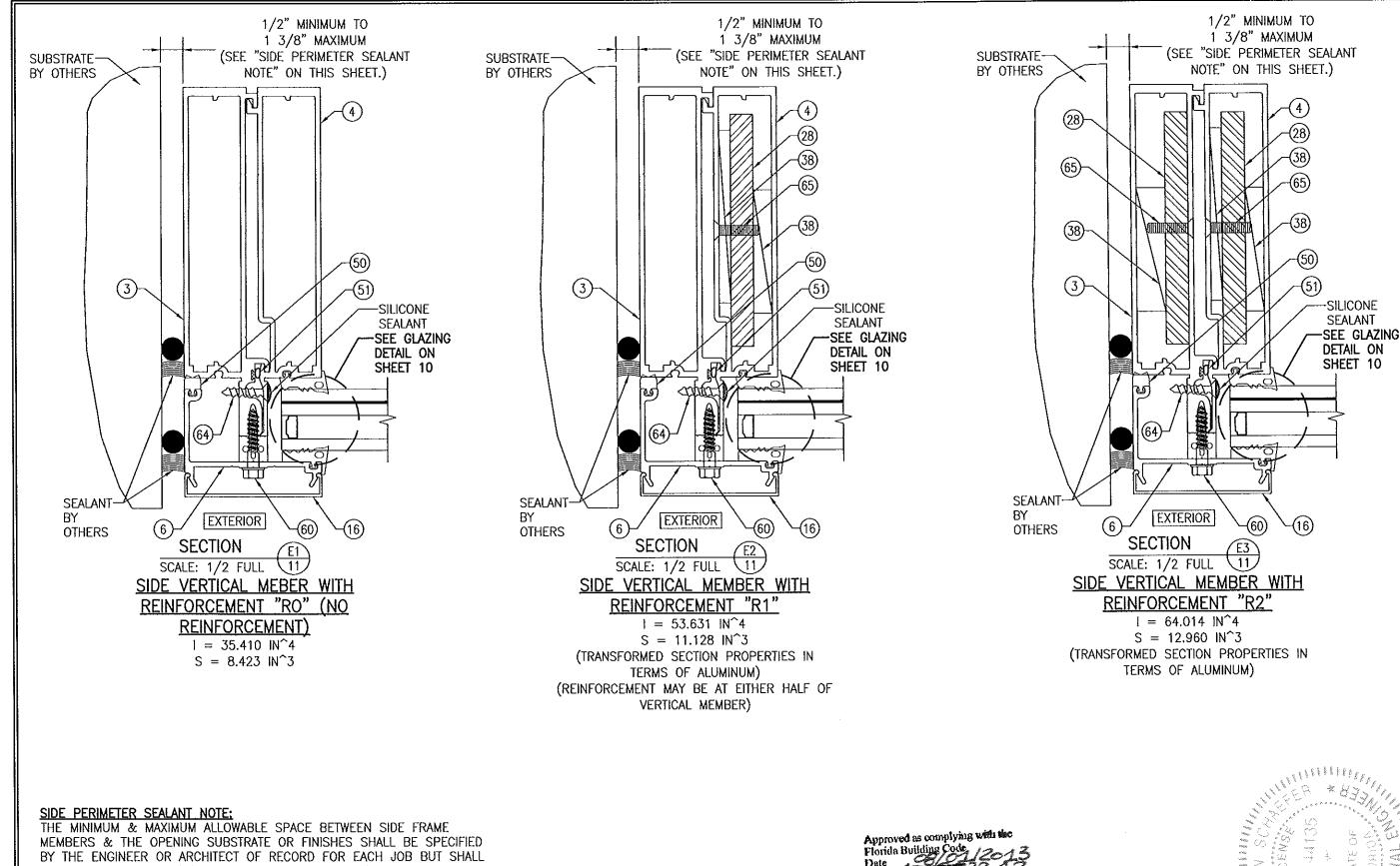








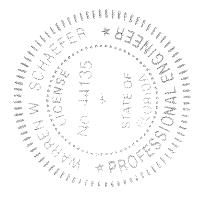


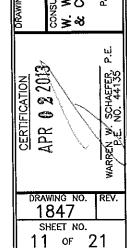


MEMBERS & THE OPENING SUBSTRATE OR FINISHES SHALL BE SPECIFIED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH JOB BUT SHALL NOT BE LESS THAN 1/2" NOR GREATER THAN 1 3/8". WHEN CONSIDERING TYPE, DEPTH & JOINT SPAN OF SEALANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO CONSIDERATION THE DEFLECTION OF THE JAMB MEMBER THAT WOULD OCCUR WHILE SUPPORTING THE JOB REQUIRED DESIGN WIND PRESSURE. ALSO TO BE CONSIDERED SHALL BE THE MATERIALS & SURFACES TO WHICH THE SEALANT WILL BE APPLIED.

Approved as complying with the Florida Building Code

NOAH
Migmi Dade Product Control





ENGINEERING P.A. (CA 6809)

HECKED BY: W.W.S.

ATE: 01/15/13

°LOT: 1=2

WALL

CURTAIN

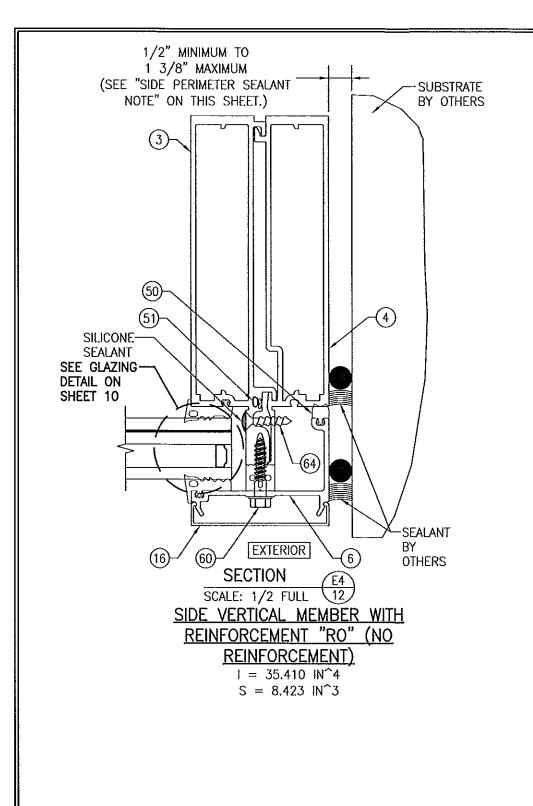
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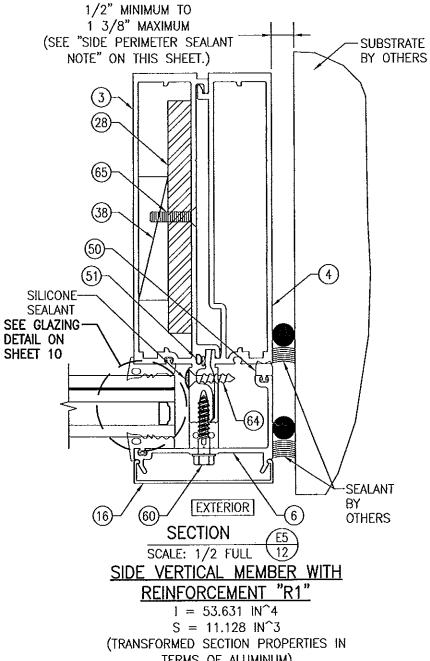
GLAZED

DRY

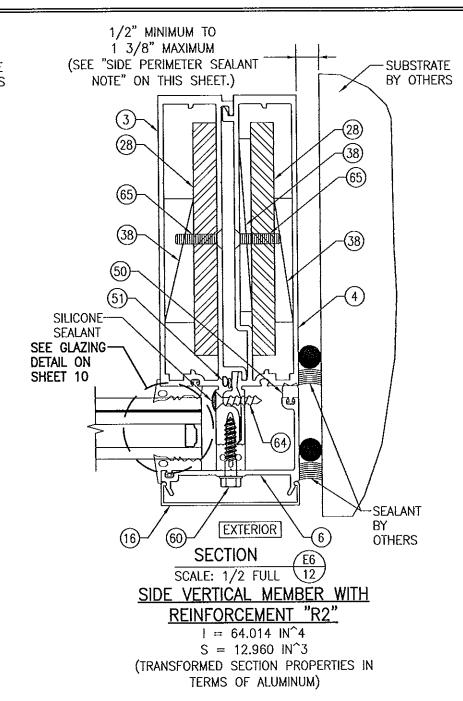
1630-

DEEP





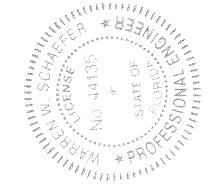
TERMS OF ALUMINUM) (REINFORCEMENT MAY BE AT EITHER HALF OF **VERTICAL MEMBER)**



SIDE PERIMETER SEALANT NOTE:

THE MINIMUM & MAXIMUM ALLOWABLE SPACE BETWEEN SIDE FRAME MEMBERS & THE OPENING SUBSTRATE OR FINISHES SHALL BE SPECIFIED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH JOB BUT SHALL NOT BE LESS THAN 1/2" NOR GREATER THAN 1 3/8". WHEN CONSIDERING TYPE, DEPTH & JOINT SPAN OF SEALANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO CONSIDERATION THE DEFLECTION OF THE JAMB MEMBER THAT WOULD OCCUR WHILE SUPPORTING THE JOB REQUIRED DESIGN WIND PRESSURE. ALSO TO BE CONSIDERED SHALL BE THE MATERIALS & SURFACES TO WHICH THE SEALANT WILL BE APPLIED.

Approved as complying with the Florida Building Code Miami Dade Product Contro



DRAWING	CONSULT W W & CO	PAU
CERTIFICATION	AFK W L-CUS	WARREN W. SCHAEFER, P.E.
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S	HEET NO	

12 of 21

ENGINEERING P.A. (CA 6809

CHECKED BY: W.W.S.

MTE: 01/15/13

DRAWN BY: W.R.M.

WALL

CURTAIN

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DRY GLAZED

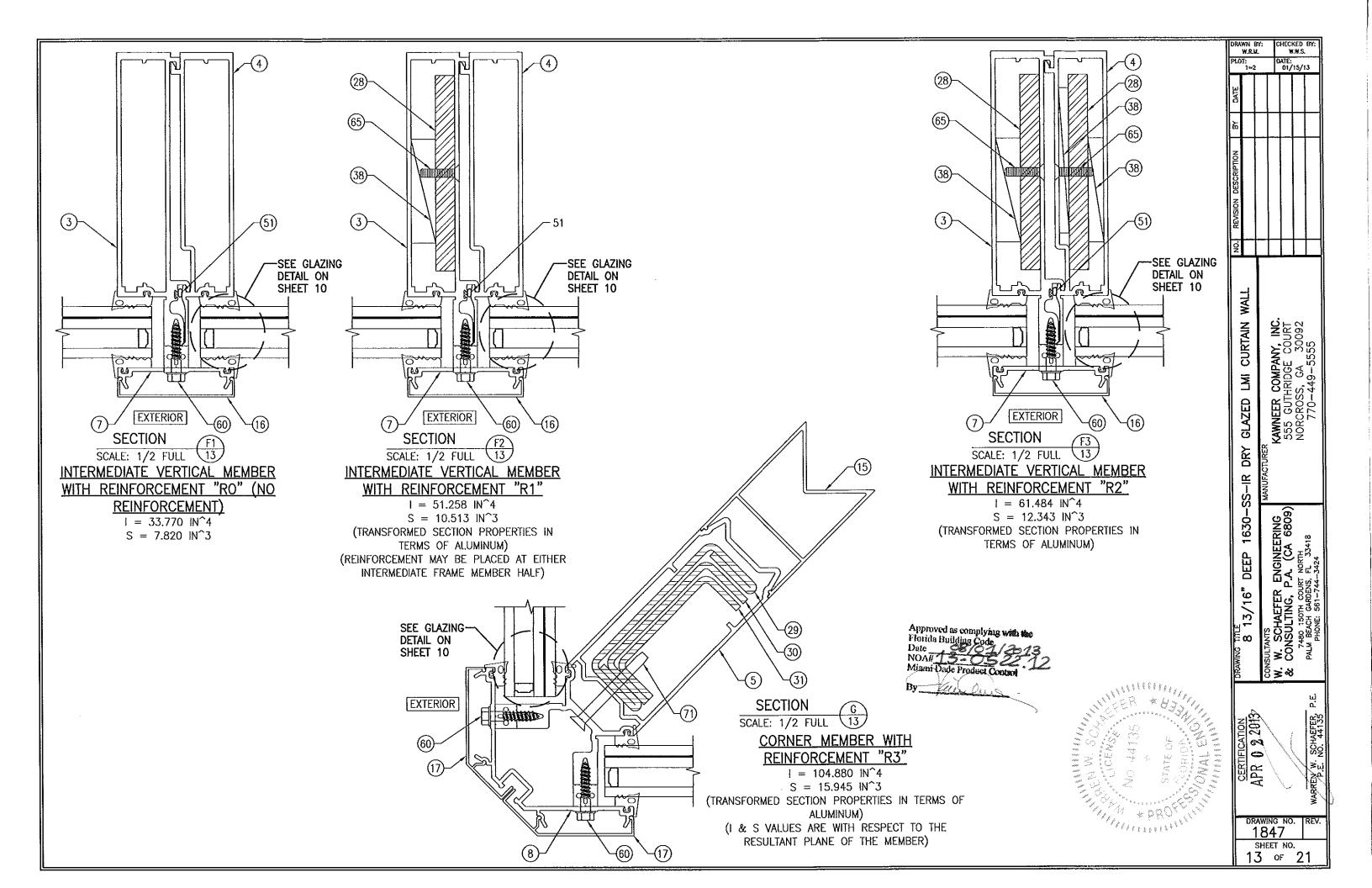
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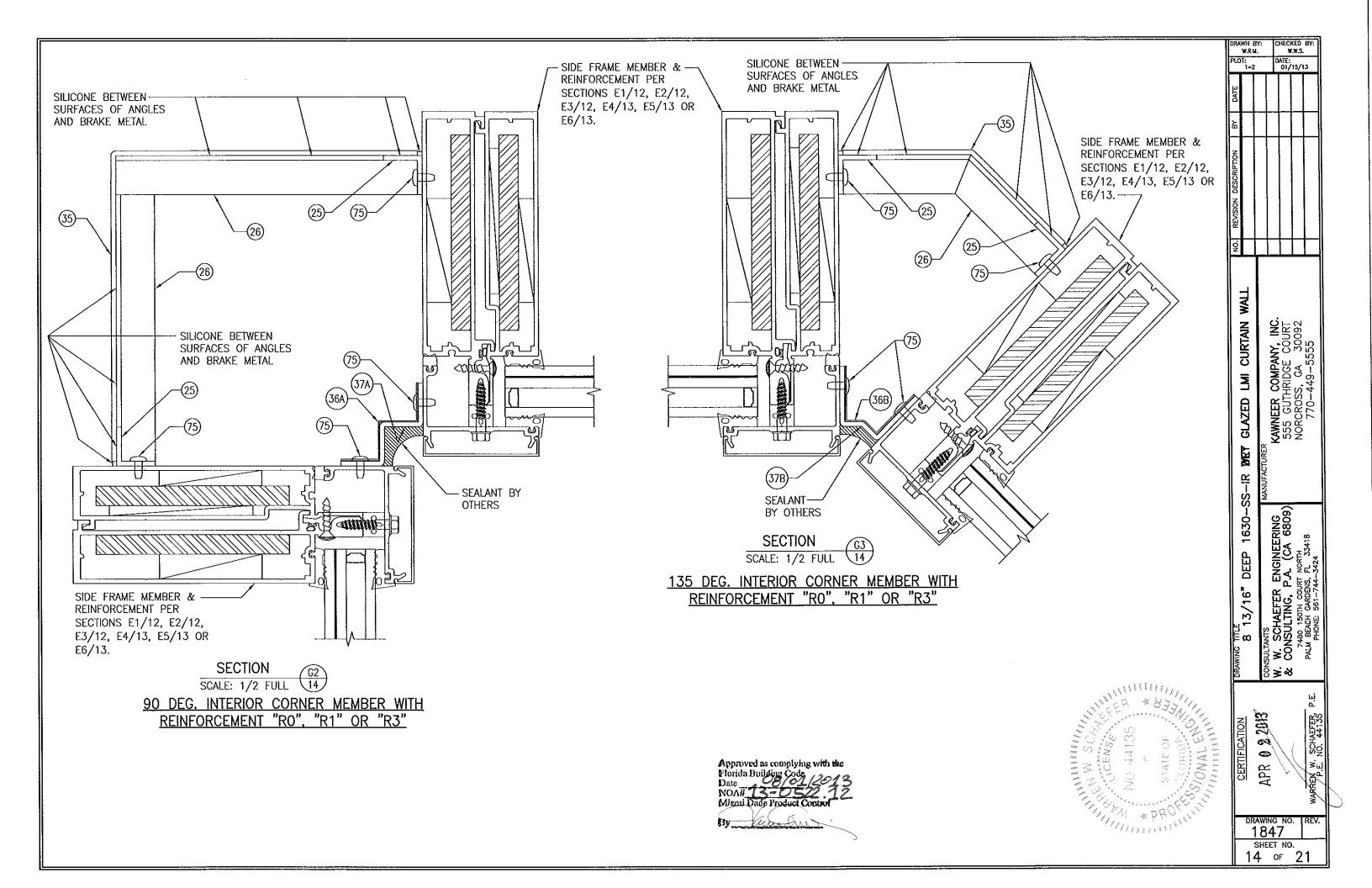
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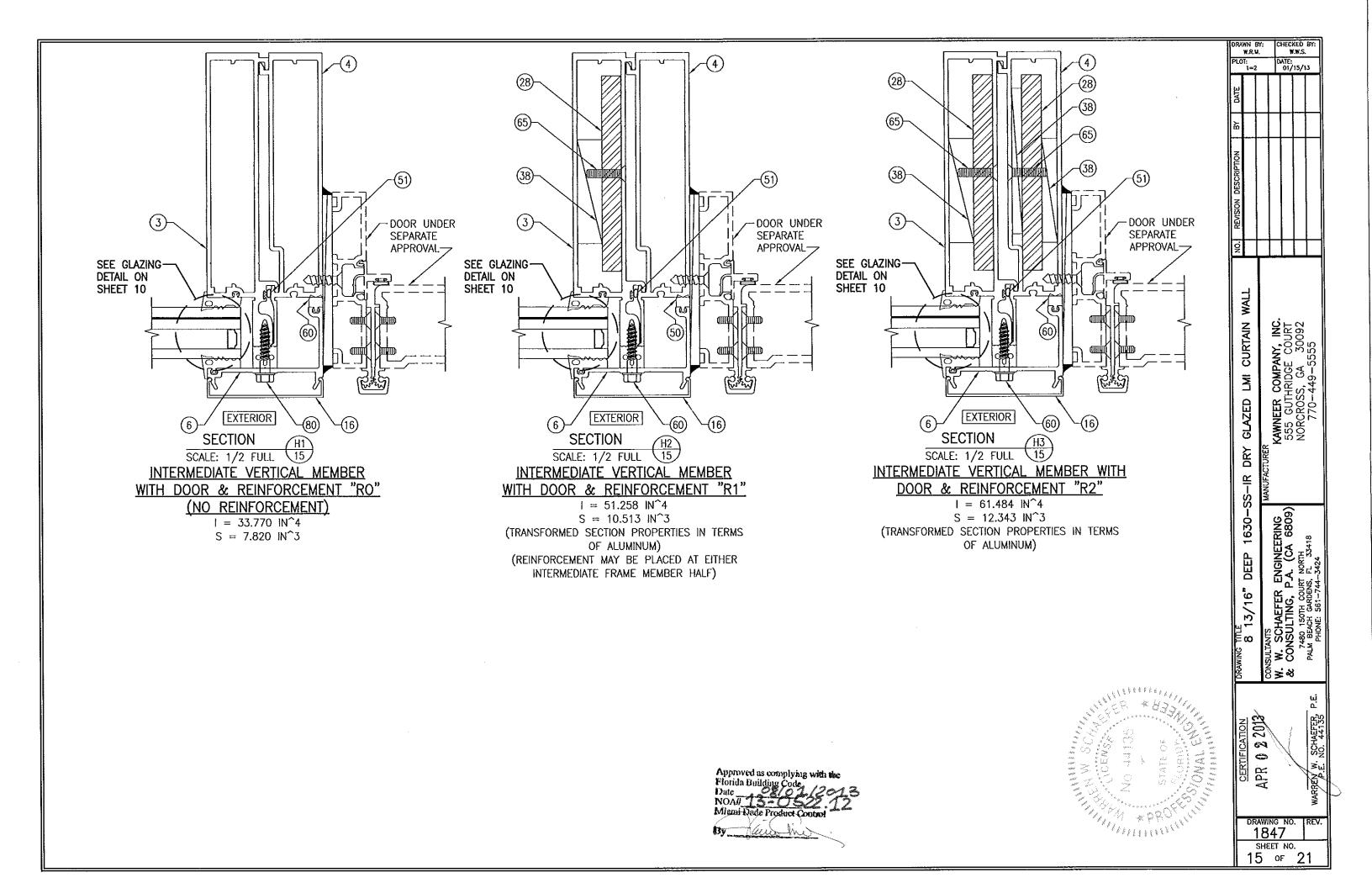
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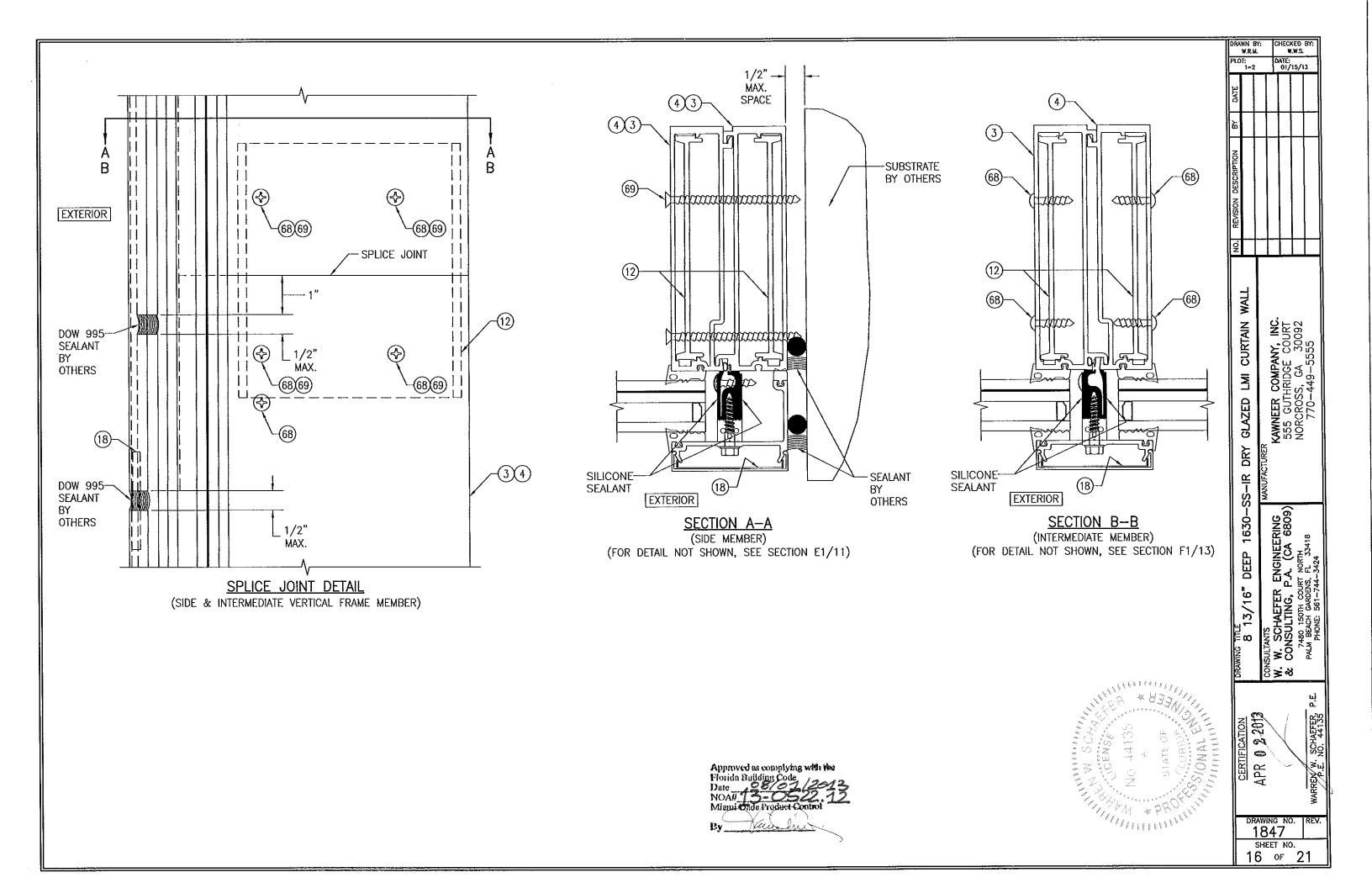
DEEP

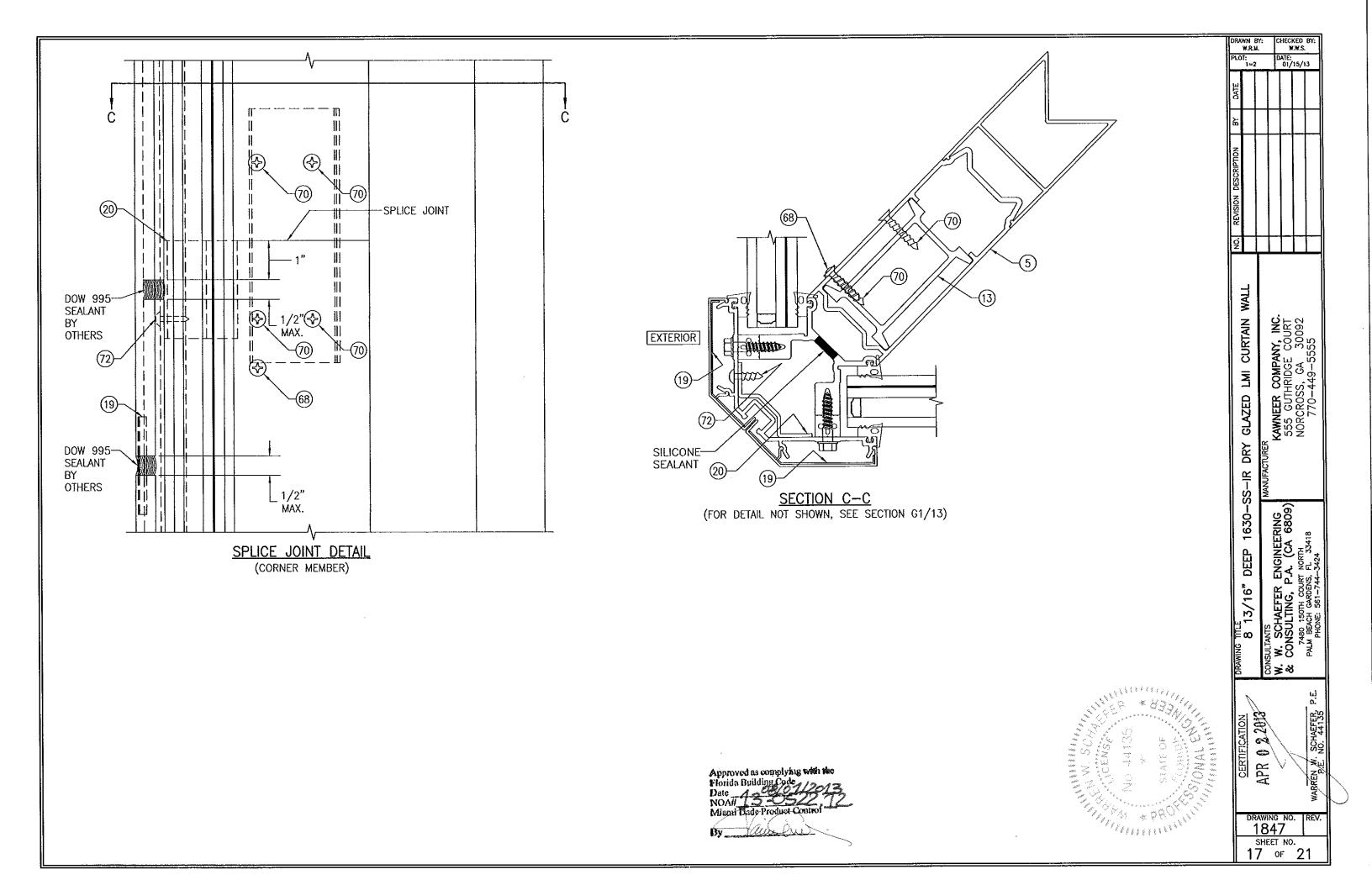
13/16"

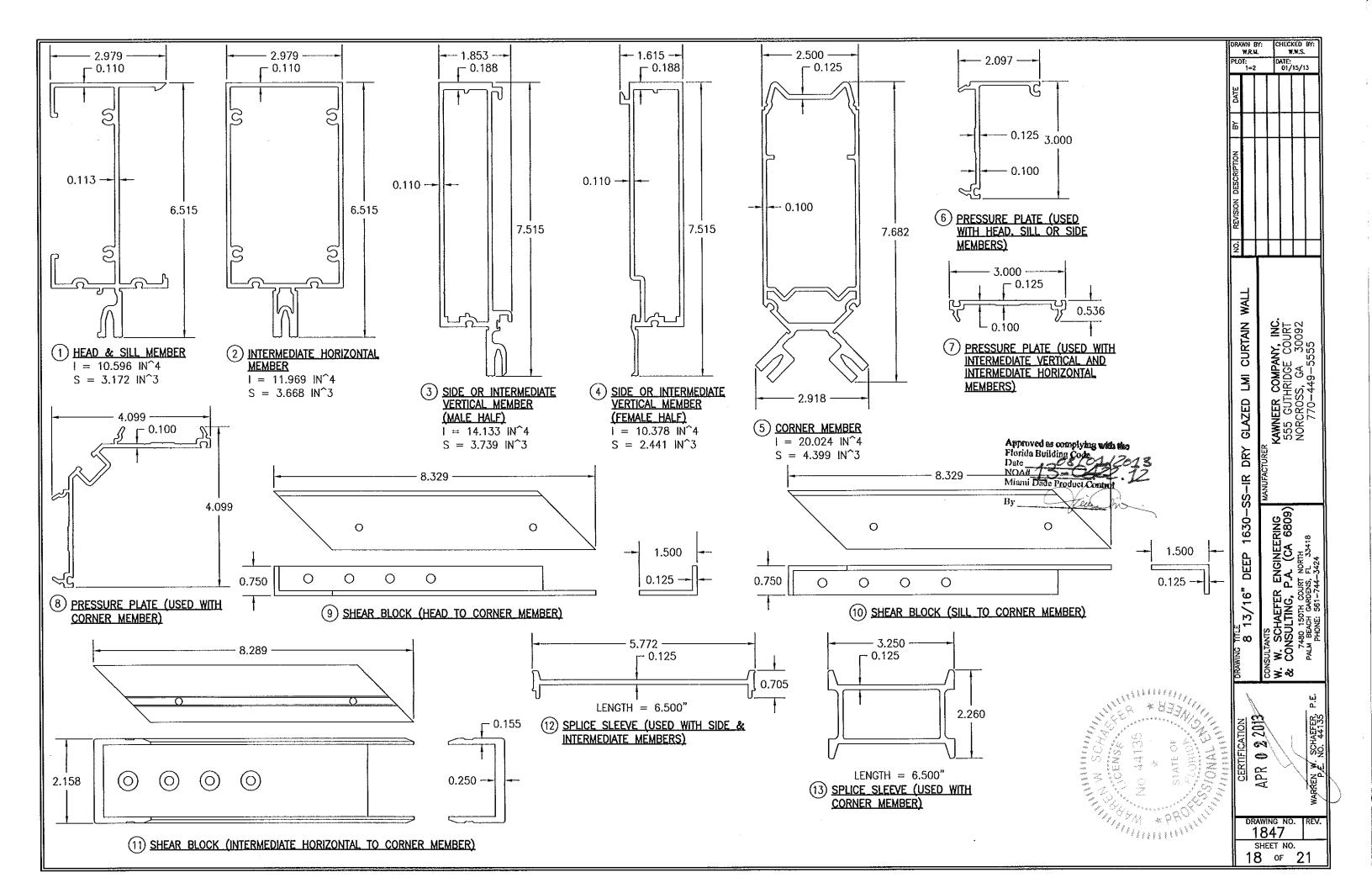


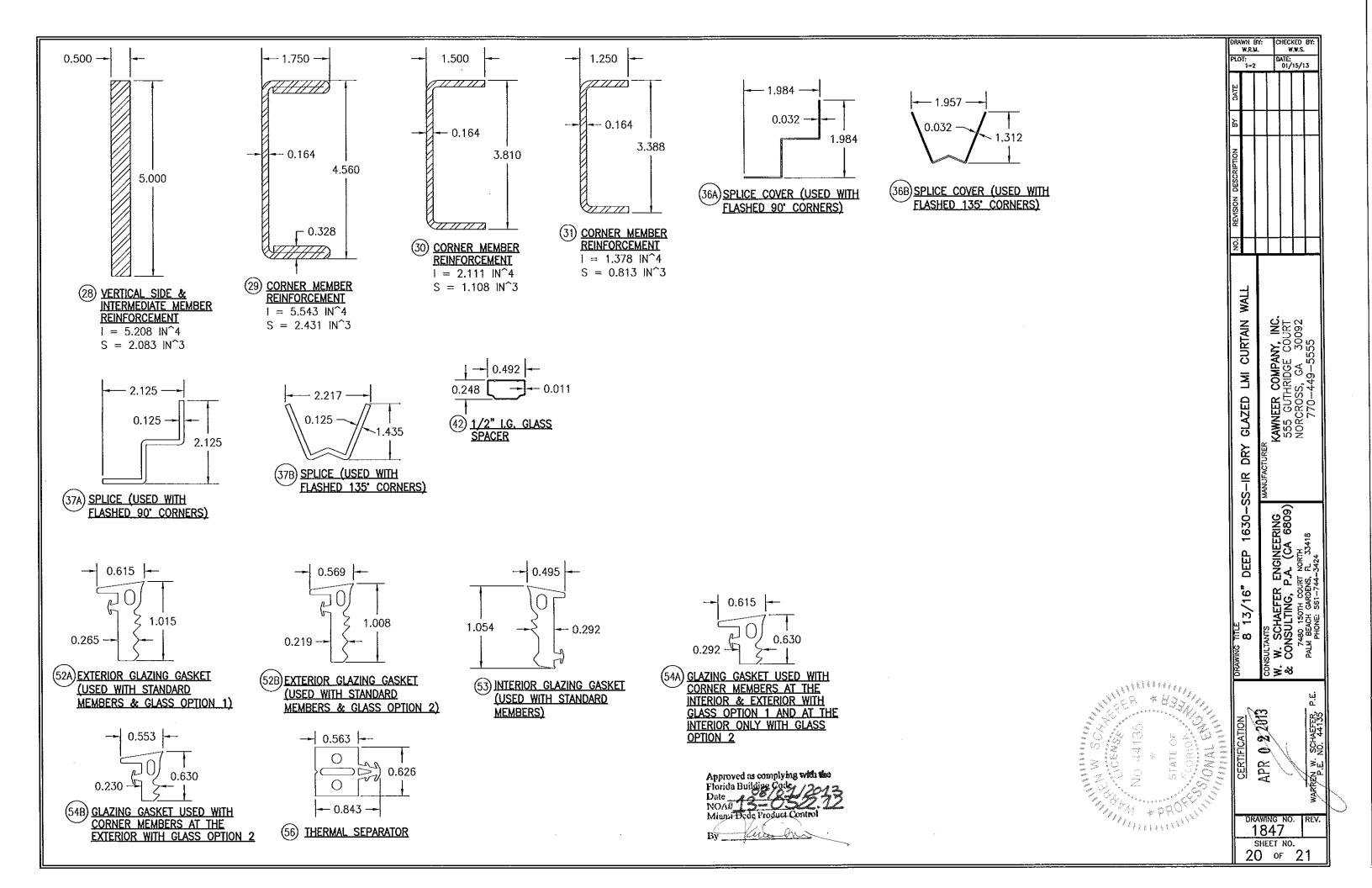












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ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
	PARTS	
1	HEAD & SILL MEMBER	6063T6 ALUMINUM
2	INTERMEDIATE HORIZONTAL MEMBER	6063-T6 ALUMINUM
3	SIDE OR INTERMEDIATE	6063-T6 ALUMINUM
	VERTICAL MEMBER (MALE HALF)	
4	SIDE OR INTERMEDIATE	6063-T6 ALUMINUM
	VERTICAL MEMBER (FEMALE HALF)	
5	CORNER MEMBER	6063—T6 ALUMINUM
6	PRESSURE PLATE (USED WITH HEAD, SILL OR	6063-T6 ALUMINUM
	SIDE MEMBERS)	
7	PRESSURE PLATE (USED WITH INTERMEDIATE	6063T6 ALUMINUM
	VERTICAL AND INTERMEDIATE HORIZONTAL MEMBERS)	
8	PRESSURE PLATE (USED WITH CORNER MEMBER)	6063-T6 ALUMINUM
9	SHEAR BLOCK (HEAD TO CORNER MEMBER)	6063-T6 ALUMINUM
10	SHEAR BLOCK (SILL TO CORNER MEMBER)	6063-T6 ALUMINUM
11	SHEAR BLOCK (INTERMEDIATE HORIZONTAL	6063-T6 ALUMINUM
	TO CORNER MEMBER)	
12	SPLICE SLEEVE (USED WITH SIDE &	6063-T6 ALUMINUM
	INTERMEDIATE MEMBERS)	
13	SPLICE SLEEVE (USED WITH CORNER MEMBER)	6063-T6 ALUMINUM
14	SNAP-IN HEAD & SILL MEMBER FILLER	6063-T6 ALUMINUM
15	CORNER MULLION INTERIOR COVER	6063-T6 ALUMINUM
16	PRESSURE PLATE COVER (USED WITH HEAD, SILL,	6063-T6 ALUMINUM
	SIDE, INTERMEDIATE VERTICAL AND INTERMEDIATE	
	HORIZONTAL MEMBERS)	
17	PRESSURE PLATE COVER (USED WITH CORNER	6063-T6 ALUMINUM
! .	MAMBER)	
18	SPLICE SLEEVE (USED WITH SIDE &	6063-T6 ALUMINUM
	INTERMEDIATE VERTICAL MEMBERS)	
19	SPLICE SLEEVE (USED WITH CORNER MEMBER)	6063-T6 ALUMINUM
20	PRESSURE PLATE SLEEVE (USED WITH	6063-T6 ALUMINUM
	CORNER MEMBER)	
21	ANGLE ANCHOR (USED WITH SIDE	6063-T6 ALUMINUM
	& INTERMEDIATE VERTICAL MEMBERS)	
22	ANGLE ANCHOR (USED WITH	6063-T6 ALUMINUM
	INTERMEDIATE VERTICAL MEMBER AT DOOR)	
23	ANGLE ANCHOR (USED WITH CORNER MEMBER)	6063-T6 ALUMINUM
24	3" X 5" X 3/16" FLAT BAR	6063-T6 ALUMINUM
25	1" X 1" X 1/8" ANGLE	6063-T6 ALUMINUM
26	1" X 1" X 1/8" ANGLE (LENGTH AS REQ'D)	6063-T6 ALUMINUM
28	VERTICAL SIDE & INTERMEDIATE MEMBER	ASTM A36 STEEL
_	REINFORCEMENT	
29	CORNER MEMBER REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
30	CORNER MEMBER REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
31	CORNER MEMBER REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
32	2" X 5 X 3/16" FLAT BAR	ASTM A1011 GRADE 50 STEEL
33	6" X 3" X 1/2" X 6" LONG ANGLE	50 KSI STEEL
34	9 1/2" X 4" X 5/8" X 6" LONG BENT PLATE	50 KSI STEEL
35	INTERIOR FLASHING (LENGTH & BEND AS REQ'D)	H5005-H34 BRAKE METAL
36A	SPLICE COVER (USED WITH FLASHED 90' CORN.)	H5005-H34 BRAKE METAL
36B	SPLICE COVER (USED WITH FLASHED 135' CORN.)	H5005-H34 BRAKE METAL
37A	SPLICE (USED WITH FLASHED 90' CORNERS)	H5005-H34 BRAKE METAL
37B	SPLICE (USED WITH FLASHED 135' CORNERS)	H5005-H34 BRAKE METAL
38	COMMERCIAL GRADE HORESHOE SHIM	PLASTIC LOCATED AT EACH ITEM #65
42	1/2" I.G. GLASS SPACER	3005 OR 3105 ALUMINUM
	1.7.	1

<u> </u>	SEALS & SEALANTS		DRAWN B'	
50	FIXED GASKET	TREMCO TR4726P EPDM DUROMETER 65 +/-5	PLOT: 1=2	DATE: 01/15/13
51	FRAMING GASKET	INTEK 50172A	T	1 1 1 1
		SANTOPRENE DUROMETER 65	DATE	
		POLYPROPYLENE DUROMETER 80	a l	
52A	EXTERIOR GLAZING GASKET (USED WITH STANDARD	TREMCO TR-20494P EPDM	ል	
	MEMBERS & GLASS OPTION 1)	DUROMETER 60 +/-5		
52B	EXTERIOR GLAZING GASKET (USED WITH STANDARD	TREMCO TR-20504P EPDM	z	
	MEMBERS & GLASS OPTION 2)	DUROMETER 60 +/-5	PTI OTT	
53	INTERIOR GLAZING GASKET (USED WITH STANDARD	TREMCO TR-19828E EPDM	DESCRIPTION	
	MEMBERS)	DUROMETER 60 +/-5	8	
54A	GLAZING GASKET USED WITH CORNER MEMBERS AT		REVISION	
	THE INTERIOR & EXTERIOR WITH GLASS OPTION 1		REV	
	& AT THE INTERIOR ONLY WITH GLASS OPTION 2			+++-
54B		TREMCO TR-4860W EPDM DUROMETER 60 +/-5	ž	
	THE EXTERIOR GLASS OPTION 2			
56	THERMAL SEPARATOR	TREMCO TR-20087E EPDM DUROMETER 70 +/-5		
57	STEEL TO ALUMINUM SEPERATOR	THERMO-TOK TN-9004	WALL	
	FASTENERS			
60	1/4" X 1 1/4" HWHTFS 300 SERIES S.S.	WITHIN 3" FROM ENDS & 9" MAX. O.C.	CURTAIN	KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555
61	NO. 12 X 1" HWHTFS 300 SERIES S.S.	2 PER FRAME END		2000
62	NO. 12 X 7/16" PHTF 430 SERIES S.S.	4 PER SHEAR BLOCK	∦ है ।	AN 3
63	NO. 12 X 1" PHTF 300 SERIES S.S.	2 PER SHEAR BLOCK	11 1	ଜ ଞ୍ଜୁ
64	NO. 10 X 1" FHTFS 300 SERIES S.S.	WITHIN 4 FROM ENDS & 48" MAX. O.C.	₹	8点~4
65	10-24 X 1" FHMS 300 SERIES S.S.	WITHIN 3" FROM ENDS & 48" MAX. O.C.	<u> </u> e	RESO -
66	NO. 12 X 1" HWHTFS 300 SERIES S.S.	4 PER FRAME END		
67	NO. 12 X 7/8" FHTFS 300 SERIES S.S.	4 PER SHEAR BLOCK	GLAZED	AW 555 105
68	NO. 12 X 1" PHTFS 300 SERIES S.S.	2 PER JAMB SPLICE JOINT 1 UNDER SLICE;		유 주
		4 PER INTERMEDIATE SPLICE JOINT 1 UNDER SLICE	DRY	TUR
		1 UNDER CORNER SLICE JOINT	-IR	JFAC
69	NO. 12 X 3 1/2" FHTFS 300 SERIES S.S.	4 PER JAMB SPLICE JOINT] <u>[</u>	AANI
70	10-16 X 1 1/4" FHSDS 300 SERIES S.S.	4 PER CORNER SPLICE JOINT	∥ Ķ ∣	
71	1/4-20 X 2 1/2" FHTCMS CARBON STEEL	WITHIN 4" FROM ENDS & 24" MAX. O.C.	330-SS	S809)
72	10-16 X 3/4" PHSDS 400 SERIES S.S.	I PER PRESSURE PLATE SLEEVE	16	1
73	10 X 5/8" FHTFS 300 SERIES S.S.	6 PER ITEM 24	`	ਡਿੱਟ [±] ਲੂ
74	NO. 10 X 1/2" FHTFS 300 SERIES S.S.	3 PER ITEM 22	DEEP	(G) NORT
			11	P. A. S. S. 44
			16"	元 。 2.65-1-1
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			SKA!	K. W. W. SOIN

Approved as complying with the Florida Building Code 13 12 NOAN 15 Control

CERTIFICATION APR 0-2-2013

DRAWING NO. RET 1847
SHEET NO. 21 OF 21